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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/642,693	08/19/2003	Kang Soo Seo	1740-000023/US	2745
30593	7590	06/04/2007		
HARNESS, DICKEY & PIERCE, P.L.C. P.O. BOX 8910 RESTON, VA 20195			EXAMINER CHIO, TAT CHI	
			ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/642,693	Applicant(s) SEO ET AL.	
	Examiner Tat Chi Chio	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 8/19/2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/16/2004</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-17 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Nonfunctional descriptive material that does not constitute a statutory process, machine, manufacture, or composition of matter and should be rejected under 35 U.S.C. 101. Certain types of descriptive material, such as music, literature, art, photographs, and mere arrangements or compilations of facts or data, without any functional interrelationship is not a process, machine, manufacture, or composition of matter. USPTO personnel should be prudent in applying the foregoing guidance. Nonfunctional descriptive material may be claimed in combination with other functional descriptive multi-media material on a computer-readable medium to provide the necessary functional and structural interrelationship to satisfy the requirements of 35 U.S.C. 101. The presence of the claimed nonfunctional descriptive material is not necessarily determinative of nonstatutory subject matter. For example, a computer that recognizes a particular grouping or sequence of musical notes read from memory and thereafter causes another defined series of notes to be played, requires a functional interrelationship among that data and the computing processes performed when utilizing that data. As such, a claim to that computer is statutory subject matter because it implements a statutory process.

Claims 1-17 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter as follows. Claims 1-17 recite a recording medium which does not impart functionality to a computer or computing device, and is thus considered nonfunctional descriptive material. Such nonfunctional descriptive material, in the absence of a functional interrelationship with a computer, does not constitute a statutory process, machine, manufacture or composition of matter and is thus non-statutory per se.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-7 and 18-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Sato et al. (5,884,004).

Consider claim 1, Sato et al. teach a recording medium having a data structure for managing reproduction of at least multiple reproduction path video data recorded on the recording medium, comprising: one or more management areas storing path change information, the path change information indicating where changes in reproducing at least one of the reproduction paths of video data are permitted (Fig. 16 and Fig. 20).

Consider claim 2, Sato et al. teach the recording medium, wherein the path change information includes one or more flags associated with each reproduction path of video data, each flag indicating whether and where a change in reproducing the associated reproduction path of video data is permitted (Fig. 16 and Fig. 20).

Consider claim 3, Sato et al. teach the recording medium, wherein flags permitting a change in a same associated reproduction path define one or more units of video data (Fig. 20).

Consider claim 4, Sato et al. teach the recording medium of claim 3, further comprising: a data area having at least the video data recorded therein, and at least a

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portion of the video data being multiplexed on a unit of video data basis (col. 10, lines 16-20).

Consider claim 5, Sato et al. teach the recording medium, wherein the reproduction paths of video data are different camera angles of video data (Fig. 5).

Consider claim 6, Sato et al. teach the recording medium, wherein each unit of video data starts with an I-picture (Fig. 78 and col. 51, lines 60-65).

Consider claim 7, Sato et al. teach the recording medium, wherein each unit of video data starts with a closed group of pictures (GOP) (Fig. 78).

Consider claim 18, Sato et al. teach a method of recording a data structure (Fig. 2) for managing reproduction of at least multiple reproduction path video data on a recording medium, comprising: recording path change information in one or more management areas of the recording medium, the path change information indicating where changes in reproducing at least one of the reproduction paths of video data are permitted (Fig. 16 and Fig. 20).

Consider claim 19, Sato et al. teach a method of reproducing a data structure (Fig. 3) for managing reproduction of at least multiple reproduction path video data recorded on a recording medium, comprising: reproducing path change information from one or more management areas of the recording medium, the path change information indicating where changes in reproducing at least one of the reproduction paths of video data are permitted (Fig. 16 and Fig. 20).

Consider claim 20, Sato et al. teach an apparatus for recording a data structure for managing reproduction of at least multiple reproduction path video data on a

recording medium, comprising: a driver for driving an optical recording device to record data on the recording medium (1200 of Fig. 2); an encoder for encoding at least multiple reproduction path video data (300 of Fig. 2); and a controller for controlling the driver to record the encoded multiple reproduction path video data on the recording medium (200 of Fig. 2), the controller for controlling the driver to record path change information in one or more management areas of the recording medium (200 of Fig. 2), the path change information indicating where changes in reproducing at least one of the reproduction paths of video data are permitted (Fig. 16 and Fig. 20).

Consider claim 21, Sato et al. teach an apparatus for reproducing a data structure for managing reproduction of at least multiple reproduction path video data recorded on a recording medium, comprising: a driver for driving an optical reproducing device to reproduce data recorded on the recording medium (2004 of Fig. 3); a controller (2300 of Fig. 3) for controlling the driver to reproduce path change information from one or more management areas of the recording medium, the path change information indicating where changes in reproducing at least one of the reproduction paths of video data are permitted (Fig. 16 and Fig. 20).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 8-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sato et al. (5,884,004) in view of Sawabe et al. (6,031,962).

Consider claim 8, Sato et al. teach the recording medium, wherein the path change information includes at least one flag, each flag associated with an entry point and identifying whether a change in reproduction path is permitted in relation to the entry point (Fig. 20), but fail to explicitly teach the recording medium, wherein the path change information includes at least one entry point map associated with each reproduction path, each entry point map identifying entry points in the video data for the associated reproduction path.

Sawabe et al. teach the recording medium, wherein the path change information includes at least one entry point map associated with each reproduction path, each entry point map identifying entry points in the video data for the associated reproduction path (Fig. 6 and Fig. 7). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate at least one entry point map to efficiently organize the control data in the recording medium.

Consider claim 9, Sato et al. teach the recording medium, wherein flags permitting a change in a same associated reproduction path define one or more units of video data (Fig. 20).

Consider claim 10, Sato et al. teach the recording medium, further comprising: a data area having at least the video data recorded therein, and at least a portion of the video data being multiplexed on a unit of video data basis (col. 10, lines 16-20).

Consider claim 11, Sato et al. teach the recording medium wherein the reproduction paths of video data are different camera angles of video data (Fig. 5).

Consider claim 12, Sato et al. teach the recording medium, wherein each unit of video data starts with an I-picture (Fig. 78 and col. 51, lines 60-65).

Consider claim 13, Sato et al. teach the recording medium of claim 9, wherein each unit of video data starts with a closed group of pictures (GOP) (Fig. 78).

Consider claim 14, Sawabe et al. further teach the recording medium, further comprising: a data area having at least one clip file recorded therein, and each clip file including video data associated with one reproduction path (Fig. 6 and Fig. 7).

Consider claim 15, Sawabe et al. further teach the recording medium wherein the entry point maps are aligned in time (Fig. 6 and Fig. 7).

Consider claim 16, Sato et al. teach the recording medium, wherein an active flag associated with an entry point indicates that changing reproduction paths is permitted after reproducing the entry point having the associated active flag (the SACF indicates that changing reproduction paths is permitted after reproducing the start address of an interleaved unit, col. 18, lines 39-43, Fig. 20 and Fig. 70).

Consider claim 17, Sato et al. teach the recording medium, wherein an active flag associated with an entry point indicates that changing reproduction paths is permitted before reproducing the entry point having the associated active flag (the SACF indicates that changing reproduction paths is permitted before reproducing the end address of an interleaved unit, col. 18, lines 39-43, Fig. 20 and Fig. 70).

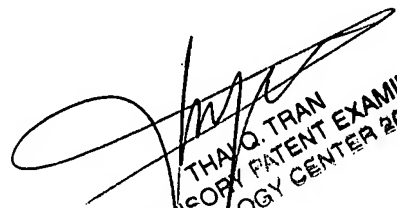
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tat Chi Chio whose telephone number is (571) 272-9563. The examiner can normally be reached on Monday - Thursday 8:30 AM-6:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thai Tran can be reached on (571)-272-7382. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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